

## REMARKS

Claims 1-42 are pending in the application. Claims 1-9, 11-24, 26-42 stand rejected, and claims 10 and 25 stands allowable if rewritten to overcome the Examiner's rejection. The Examiner's objections and rejections are addressed below.

### **REJECTIONS UNDER 35 USC § 102**

Claims 1-4, 9, 11, 12, 15-19, 26, 27, 29-33, 37-40 and 42 stand rejected under 35 USC § 102(b) as being anticipated by Siems et al. (US 5,627,798). Claims 1, 16, 31, 38 and 40 are independent claims.

The Examiner contends that, with respect to claim 1, Siems et al. discloses

a method of and system for acquiring digital seismic information, the system comprising a sensor for sensing an environmental condition and providing a first signal indicative of the sensed environmental condition; transducers (hydrophone, col. 4, lines 11-13) coupled to the sensor or receiving the first signal; an optical fiber (col. 4, lines 39-50) coupled to the transducer, the transducer converting the received first signal to the digital seismic information comprising a digital optical signal transmitting a multi-bit word using modulation in the optical fiber; and a recorder 50 recording information based at least in part on the digital seismic information comprising the digital optical signal, the recorded information being indicative of the sensed environment condition; the optical signals are converting into electrical signals and vice versa (col. 5).

Claim 1 has been amended to include the feature of "a transducer that modulates an optical carrier to produce a digital optical data signal corresponding to a signal indicative of a sensed environmental condition." The Applicants respectfully submit that Siems et al. does not disclose the feature of a transducer that modulates an optical carrier to produce a digital optical data signal corresponding to a signal indicative of a sensed environmental condition. Rather Siems et al. discusses in col. 10 lines 50-67 and col. 11 lines 1-6 the use of delta-sigma modulators. A delta-sigma modulator converts analog signals to digital signals and converts digital signals to analog signals

but is not used in modulating an optical carrier. Thus, claim 1 is not anticipated by Siems et al. Additionally, Siems et al. does not teach, disclose or suggest any modifications that would make claim 1 obvious. Therefore, it is respectfully requested that the rejection of claim 1 under 35 USC § 102(b) over Siems et al. be withdrawn.

Claim 16 includes the feature of "modulating an optical carrier to produce the digital optical data signal corresponding to a signal indicative of a sensed environmental condition" of claim 1. Claim 16 is not anticipated by Siems et al. for the same reasons provided above with respect to claim 1. Accordingly, it is respectfully requested that the rejection of claim 16 under 35 USC § 102(b) over Siems et al. be withdrawn.

Claim 31 includes the feature of "a transducer coupled to the sensor for receiving the first signal and converting the first signal to a digital optical data signal indicative of the sensed environmental condition" of claim 1. Claim 31 is not anticipated by Siems et al. for the same reasons provided above with respect to claim 1. Accordingly, it is respectfully requested that the rejection of claim 31 under 35 USC § 102(b) over Siems et al. be withdrawn.

Claim 38 includes the feature of "a transducer coupled to the sensor for receiving the first signal and converting the first signal to a digital optical data signal indicative of the sensed environmental condition" of claim 1. Claim 38 is not anticipated by Siems et al. for the same reasons provided above with respect to claim 1. Accordingly, it is respectfully requested that the rejection of claim 38 under 35 USC § 102(b) over Siems et al. be withdrawn.

Claim 40 includes the feature of "converting the first signal to a digital optical data signal relating to the digital information" of claim 1. Claim 40 is not anticipated by Siems et al. for the same reasons provided above with respect to claim 1. Accordingly, it is respectfully requested that the rejection of claim 40 under 35 USC § 102(b) over Siems et al. be withdrawn.

Claims 2, 3, 4, 9, 11, 12 and 15 depend from claim 1 and are not anticipated by Siems et al. for the reasons specified with respect to claim 1.

Claims 17, 18, 19, 26, 27 and 29-31 depend from claim 16 and are not anticipated by Siems et al. for the reasons specified with respect to claim 16.

Claims 32, 33 and 37 depend from claim 31 and are not anticipated by Siems et al. for the reasons specified with respect to claim 31.

Claim 39 depends from claim 38 and is not anticipated by Siems et al. for the reasons specified with respect to claim 38.

Claims 41 and 42 depend from claim 40 and are not anticipated by Siems et al. for the reasons specified with respect to claim 40.

#### **REJECTIONS UNDER 35 USC § 103**

Claims 5, 7, 8, 13, 20-24, 28, 34-36 and 41 stand rejected under 35 USC § 103(a) as being unpatentable over Siems et al. (US 5,627,798).

Each of these claims depend from one of the independent claims discussed above. Therefore, these claims are allowable for the reasons provided above with respect to their corresponding independent claims.

## **CONCLUSION**

For all the foregoing reasons, Applicants submit that the application is in a condition for allowance. No fee is believed to be due for the filing of this paper. The Commissioner, however, is hereby authorized to charge any additional fees or credit any overpayment to Deposit Account No. **13-0010 (IO-1091US)**.

Respectfully submitted,

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